

WHAT IS CLAIMED IS:

1. An energy consumption efficiency improving agent which forms a substance having a large adherability to an applying object and a high adherence to a contacting object and greatly reduces energy loss, and attains improvement of an energy consumption efficiency substantially equal to three powers of adhesion improving rate under ordinary use conditions.
- 10 2. An energy consumption efficiency improving agent which is applied to an object to form a thin film of a viscosity of 100,000 cp or less and a thickness of 10  $\mu\text{m}$  or less throughout on a finely uneven surface of the object.
- 15 3. The energy consumption efficiency improving agent according to claim 2, comprising a mixture of a flexible polymer binder which adheres to an organic material and an inorganic material and has a viscosity of 100,000 cp or less, and a solution-forming agent necessary to make the viscosity of the mixture 100 cp or less.
- 20 4. The energy consumption efficiency improving agent according to claim 2, comprising a mixture of a flexible polymer binder which adheres to an organic material and an inorganic material and has a viscosity

of 100,000 cp or less, an antislipping agent comprising fine particles of an average particle diameter of 10 µm or less, and a solution-forming agent necessary to make the viscosity of the mixture 100 cp or less.

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5. The energy consumption efficiency improving agent according to any one of claims 2 to 4, wherein a base material of the polymer binder is at least one selected from the group consisting of polyethylene; a  
10 methyl, phenyl, chloro, hydroxy, acetoxy, or cyano derivative of polyethylene; polybutadiene, a methyl or chloro derivative of polybutadiene; a copolymer of the polyethylene derivative and the butadiene derivative; silicone; polysulfide; and polyurethane.

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6. The energy consumption efficiency improving agent according to any one of claims 2 to 4, wherein a base material of the polymer binder is at least one selected from the group consisting of silicone;  
20 polysulfide; polyurethane; modified epoxy resin; and modified acryl resin which are generated by condensation action of an external substance such as water during adhesion.

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7. The energy consumption efficiency improving agent according to claim 3 or 4, wherein the solution-forming agent is a solvent which is capable of diluting

the binder, including a solvent which dilutes the binder by colloid formation, such as alcohols including isopropyl alcohol.

5        8. The energy consumption efficiency improving agent according to claim 4, wherein the antislipping agent is a finely particulate inorganic material mainly comprised of silicon oxide, aluminum oxide, cerium oxide, or silicon carbide, or a finely particulate organic material such as a ground nutshell of a walnut.

10      9. An energy consumption efficiency improving method, comprising applying the energy consumption efficiency improving agent as set forth in any one of claims 1 to 4 to an object to form a thin film of a viscosity of 100,000 cp or less and a thickness of 10  $\mu\text{m}$  or less on a surface of the object.

15      10. An article improved in energy consumption efficiency having a contact surface to be brought into contact with a surface of a support, and a thin film formed on the contact surface by application of the energy consumption efficiency improving agent as set forth in any one of claims 1 to 4, the film having a viscosity of 100,000 cp or less and a thickness of 10  $\mu\text{m}$  or less.

11. The article according to claim 10, which is a tire for a vehicle or a footwear.